

REMARKS/ARGUMENTS

Claims 1, 3 and 5 are now pending, a total of 3 claims. Claim 1 is independent.

Claim 1 stands rejected on "written description grounds, and under 35 USC § 102. Claims 3 and 5 stand rejected under 35 USC § 103(a).

Claims 2 and 4 have been cancelled. Claim 6 was withdrawn from consideration.

Applicant respectfully requests reconsideration of the application.

The amendments to the claims merely clarify their scope, and are not made for a substantial reason related to patentability.

Applicant believes that amended Claim 1 has sufficient antecedent basis for all terms used therein, and that it particularly points out and distinctly claims the subject matter of the invention. As shown below, amended Claims 1, 3 and 5, are not anticipated, taught, or suggested by any of the cited references.

I. Independent Claim 1

In this Response, independent Claim 1 is amended. The structure of the luer lock portion of Claim 1 includes an outer cylinder and an inner cylinder. The outer cylinder of the luer lock portion has an inner peripheral surface and the inner cylinder of the luer lock portion has an outer peripheral surface.

Applicant respectfully submits that Moncada et al. does not disclose a pre-filled syringe barrel, as recited in Claim 1, with a luer lock portion formed in a nozzle portion thereof, the luer lock portion comprising an inner cylinder and an outer cylinder, wherein all or part of an inner peripheral surface of said outer cylinder, and/or all or part of an outer peripheral surface of said inner cylinder have/has a roughened surface. Moncada et al. discloses a luer lock connection between an adaptor 80 and an end portion of syringe 82. The Examiner has

acknowledged that adapter 80 of Moncada et al. is a component of the plastic syringe barrel.

Applicant respectfully submits that adapter 80 therefore does not extend from the nozzle portion of the syringe barrel. Nor is the luer lock connector of Moncada et al. formed in the nozzle portion of the syringe barrel.

The Examiner states that “Moncada et al. teach that all or part of an inner surface of the luer lock portion has a roughened surface.” 6/16/2003 Office Action at 4. Applicant respectfully submits that no such description is found in Moncada et al. The disclosure of Moncada et al. merely teaches that “teeth or a roughened surface are formed on the ears” and does not teach that a roughened surface is formed on an inner peripheral surface of an outer cylinder and/or an outer peripheral surface of an inner cylinder of a connector portion in accordance with the present invention.

Further, the requirement that cyclic polyolefin resin is used as the material of the syringe barrel has been added to Claim 1. Cyclic polyolefin resin is a smooth material that is very slippery. It is made even more slippery in a pre-filled syringe. When an extension tube or other extension device is engaged with the syringe barrel, for example, at its nozzle portion, the connection or engaging portion thereof gets wet with fluid, which causes the extension tube or other device to become disengaged. By using a luer lock portion having roughened surfaces, as recited in Claim 1, firm engagement between the syringe barrel and the extension device is realized.

The Examiner has acknowledged that “Moncada et al. fail to teach that the material of the plastic syringe barrel is cyclic polyolefin resin.” 6/16/2003 Office Action at 7. Porfano et al. is cited as teaching a syringe barrel made of cyclic polyolefin copolymers. It is respectfully submitted that the technical field and purpose of Porfano et al. differ from that of the

claimed invention. Porfano et al. is directed to a method for using a locally controlled environment that is clean and substantially free of airborne particulates to assemble, fill and package syringe barrels. Porfano et al. teaches that either polyoefins (which can contain a clarifying agent) or cyclic olefin polymers (which do not require a clarifying agent) are materials "suitable for long term storage of a substance" (col. 6, line 44) and therefore appropriate for use in pre-filled syringe barrels. The present invention relates to a plastic syringe barrel and an extension tube or like device connected a nozzle portion thereof. A contrast medium is injected under pressure into the body through the extension tube or the like. If injection is performed with a loose connection between the syringe barrel and extension tube, there is a possibility of leakage of the contrast medium. An object of the present invention is to avoid looseness of the connection.

II. Dependent Claims 3 and 5

Dependent claims 3 and 5 are patentable with independent claim 1, as discussed above. In addition, the dependent claims recite additional features that further distinguish the art.

The Examiner states that "Moncada et al. teach that any frictional engaging means (including teeth or a roughened surface, col. 4, lines 45-50) may be positioned at any other location along the length of the adapter (col. 6, lines 19-23)." 6/16/2003 Office Action at 5. It is respectfully submitted that Moncada et al. makes no such suggestion. First, the engaging means of Moncada et al. is intended, like threaded surface 100 (col. 6, lines 14-16) formed on an outer peripheral surface of an outer cylinder of a female luer lock portion 118, for attachment of a needle guard 98 to outer surfaces of an adapter 80 and a syringe barrel 84. The threads 100 are engaged selectively with threads 102 or threads 104 formed on an inner surface of the needle

guard 98, so that the needle guard 98 is fixed selectively to a position protecting a needle 96 or a position on an outer surface of the syringe barrel 84 (col. 5, lines 17 -33; Fig. 4).

It is also recited in Moncada et al. that “the outside surface of the ears 34 includes teeth 48 for increased frictional engagement between the ears 34 and a cooperating female luer lock portion to prevent unintentional disengagement of the adapter 20 during manipulation of the sleeve engaging means or needle connector 26” (col. 4, lines 45-50), and that “it is also contemplated to utilize other friction increasing means, instead, including teeth or a roughened surface on a rear surface 50 of the ears 34” (col. 4, lines 50-53). Therefore, to form an engaging means for engagement of the needle guard 98 at an arbitrary position on the outer peripheral surface of the adapter and to form teeth or a roughened surface on the outer surface or the rear surface of the ears are taught. However, the engaging means does not include teeth or a roughened surface. Nor is it suggested that a roughened surface is formed at a position other than at the ears of the luer lock portion.

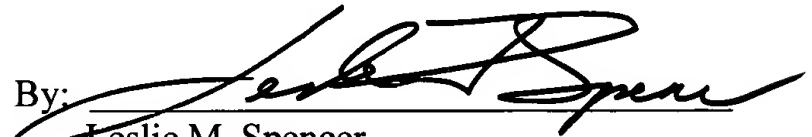
With respect to Claim 5, the Examiner states that “Lampkin discloses that a surface of the syringe is roughened by sand blasting or other roughening processes.” 6/16/2003 Office Action at 8. Lampkin makes no mention of a luer lock or connector portion. Nor does it teach that a roughened surface is formed on an inner peripheral surface of an outer cylinder and/or an outer peripheral surface of an inner cylinder of such a connector portion. It is respectfully submitted that the purpose of the roughened area of the Lampkin syringe is entirely different than in the claimed invention. In Lampkin, the roughened area provides a writing surface on which indicia identifying the patient and/or contents of the syringe can be easily applied (col. 1, lines 63-67). An object of the present invention is to avoid looseness of the connection between a syringe barrel and an extension tube or like device. It is respectfully

submitted that no motivation to combine Lampkin with the teachings of the present invention has been shown.

In view of the amendments and remarks, Applicant respectfully submits that the claims are in condition for allowance. Applicant requests that the application be passed to issue in due course. The Examiner is urged to telephone Applicant's undersigned counsel at the number noted below if it will advance the prosecution of this application, or with any suggestion to resolve any condition that would impede allowance. Enclosed is Petition for Extension of Time for two (2) months. In the event that further extension of time is required, Applicant petitions for that extension of time required to make this response timely. Kindly charge any additional fee, or credit any surplus, to Deposit Account No. 23-2405, Order No. 114174.00001.

Respectfully submitted,
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